

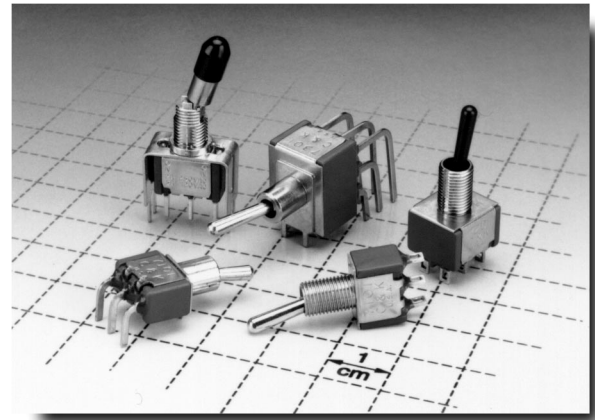


Features/Benefits

- Multi-pole and multi-position
- Wide variety of actuator and termination options
- Epoxy sealed terminals prevent contamination during soldering

Typical Applications

- Telecommunications
- Instrumentation
- Medical equipment



Build-A-Switch

Our easy Build-A-Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. Switches with standard options are shown on pages A-4 and A-5. Available options are shown and described on pages A-6 thru A-18. For additional options not shown in catalog, consult our Customer Service Center.

Typical Example: 7 1 0 1 — S — — — Y — — — Z — — — Q — E — — —

Switch Function

- 7101** (STD.) SP On-None-On
- 7103** (STD.) SP On-Off-On
- 7201** (STD.) DP On-None-On
- 7203** (STD.) DP On-Off-On
- 7211** (STD.) DP On-On-On
- 7301** (STD.) 3P On-None-On
- 7401** (STD.) 4P On-None-On
- 7105** SP Mom.-Off-Mom.
- 7107** SP On-Off-Mom.
- 7108** SP On-None-Mom.
- 7109** SP None-On-Mom.
- 7205** DP Mom.-Off-Mom.
- 7207** DP On-Off-Mom.
- 7208** DP On-None-Mom.
- 7209** DP None-On-Mom.
- 7213** DP On-On-Mom.
- 7215** DP Mom.-On-Mom.
- 7303** 3P On-Off-On
- 7305** 3P Mom.-Off-Mom.
- 7307** 3P On-Off-Mom.
- 7308** 3P On-None-Mom.
- 7309** 3P None-On-Mom.
- 7403** 4P On-Off-On
- 7405** 4P Mom.-Off-Mom.
- 7407** 4P On-Off-Mom.
- 7408** 4P On-None-Mom
- 7409** 4P None-On-Mom.
- 7411** 4P On-On-On
- 7413** 4P On-On-Mom.
- 7415** 4P Mom.-On-Mom.

Actuator

- M** (STD.) .200" high
- P3** (STD.) Flatted, anti-rotation, .450" high
- S** (STD.) .410" high
- T** (STD.) .687" high, 15/32 bushing
- K2** Locking lever, .704" high
- K9** Locking lever, .704" high
- K12** Locking lever, .732" high
- K19** Locking lever, .732" high
- L** .840" high
- L1** .640" high
- L1P** Anti-rotation, .640" high
- L2** .550" high
- L2P** Anti-rotation, .550" high
- L3** Plastic, .840" high
- L3P** Plastic, anti-rotation, .840" high
- L40** Lever handle without cap
- L41** Lever handle with cap
- L42** Lever handle with cap
- LP** Anti-rotation, .840" high
- MP** Anti-rotation, .200" high
- P1** Flatted, anti-rotation, .840" high
- P4** Flatted, anti-rotation, .250" high
- SP** Anti-rotation, .420" high
- T1** .460" high, 15/32 bushing
- T1P** Anti-rotation, .460" high, 15/32 bushing
- T2P** Flatted, anti-rotation, .610" high, 15/32 bushing,
- TP** Anti-rotation, .687" high, 15/32 bushing

Bushing

- D** (STD.) .280" high, keyway
- H** (STD.) .296" high, flat
- Y** (STD.) .350" high, keyway
- NONE** No bushing choice required
- CW** Splashproof
- D8** .280" high, flat
- D9** .280" high, keyway
- H3** .315" high, keyway
- H4** 8mm high, keyway
- Y1** .378" high, keyway
- Y3** 8.9mm high, keyway
- Y4** .378" high, flat
- Y9** .350" high, keyway

Terminations

- A** (STD.) Right angle, PC thru-hole
- AV2** (STD.) Vert. right angle, PC thru-hole
- C** (STD.) PC Thru-hole
- V3** (STD.) .460" high, V-bracket
- Z** (STD.) Solder lug
- A2** Right angle, PC thru-hole
- A3** Right angle, PC thru-hole
- A4** Right angle, PC thru-hole
- A7** Right angle, PC thru-hole
- AV3** Vert. right angle, PC thru-hole
- AW** Right angle, extended, PC thru-hole
- AW1** Right angle, extended, PC thru-hole
- AW3** Right angle, extended, PC thru-hole
- AW4** Right angle, extended, PC thru-hole
- R** Right angle with PCB
- R2** Right angle with PCB
- V2** .555" high, V-bracket
- V4** .630" high, V-bracket
- V6** .460" high, V-bracket
- V7** .630" high, V-bracket
- V8** .953" high, V-bracket
- V9** 1.150" high, V-bracket

Contact Material

- B** (STD.) Gold
- Q** (STD.) Silver Seal
- K** Gold
- E** (STD.) Epoxy
- M** Silver
- I** Epoxy potted base
- G** Gold over silver
- L** Gold over silver

Actuator Color/Finish

- NONE** (STD.) Finish
- 0** (STD.) Actuator finish with black bushing
- 1** White
- 2** Black
- 3** Red
- 7** Blue
- S** Satin chrome

Bushing Finish

- NONE** (STD.) Nickel on all bushings (except D8, satin chrome)
- 2** Black

KXX Actuator Color/Finish

- NONE** (STD.) Natural aluminum
- 0** (STD.) Natural aluminum with black bushing
- 2** Black anodized aluminum
- 3** Red anodized aluminum
- 7** Blue anodized aluminum
- V21** .555" high, snap-in V-bracket
- V31** .460" high, snap-in V-bracket
- V41** .630" high, snap-in V-bracket
- V61** .460" high, snap-in V-bracket
- V71** .630" high, snap-in V-bracket
- V81** .953" high, snap-in V-bracket
- V91** 1.150" high, snap-in V-bracket
- W** .750" long, wire wrap
- W1** .964" long, wire wrap
- W3** .425" long, wire wrap
- W4** 1.062" long, wire wrap
- W5** 1.305" long, wire wrap
- Z3** Quick connect

Note: UL/CSA models available, see page A-6.

7000 Series Miniature Toggle Switches



Specifications

- CONTACT RATING:** B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 5 AMPS @ 120 V AC or 28 V DC; 2 AMPS @ 250 V AC. See page A-18 for additional ratings.
- ELECTRICAL LIFE:** 7X01 and UX1 models: 100,000 make-and-break cycles at full load. All other models: 40,000 cycles.
- CONTACT RESISTANCE:** Below 10 milliohms typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.
- INSULATION RESISTANCE:** 10⁹ ohms min.
- DIELECTRIC STRENGTH:** 1000 V RMS min. @ sea level.
- OPERATING TEMPERATURE:** -30°C to 85°C.
- SOLDERABILITY:** Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Materials

- CASE:** Glass filled nylon 6/6, flame retardant, heat stabilized, or diallyl phthalate (DAP) (UL 94V-0).
- ACTUATOR:** Brass, chrome plated.
- BUSHING:** Brass or zinc, nickel plated.
- HOUSING:** Stainless steel.
- SWITCH SUPPORT:** Brass or steel, tin plated.
- END CONTACTS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page A-18 for additional contact materials.
- CENTER CONTACTS & ALL TERMINALS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page A-18 for additional contact materials.
- TERMINAL SEAL:** Epoxy.
- HARDWARE:** Nut & Locking Ring: Brass, nickel plated.
Lockwasher: Steel, nickel plated.

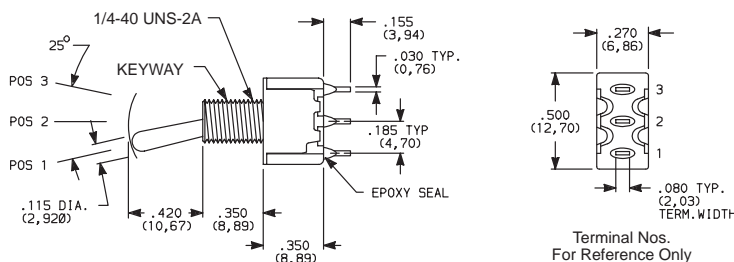
Toggle

A

SWITCHES WITH STANDARD OPTIONS



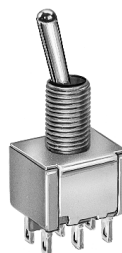
7101SYZQE
SPDT



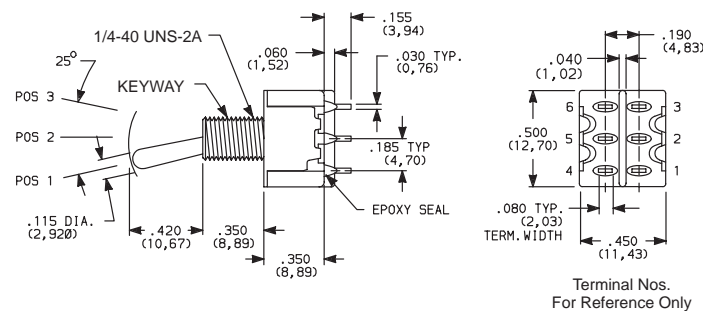
PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7101SYZBE	SPDT	ON	NONE	ON
7101SYZGE		ON	NONE	ON
7101SYZQE		ON	NONE	ON
7103SYZQE		ON	OFF	ON
7105SYZQE		MOM.	OFF	MOM.
7107SYZQE		ON	OFF	MOM.
7108SYZQE	ON	NONE	MOM.	

MOM. = Momentary

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-9.
For PC mounting information, see page A-10.



7201SYZQE
DPDT



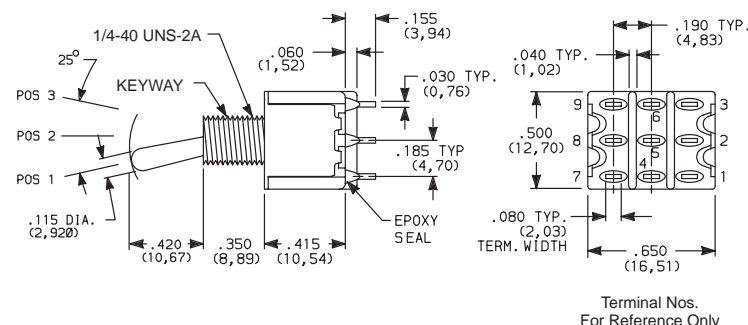
PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7201SYZQE	DPDT	ON	NONE	ON
7203SYZQE		ON	OFF	ON
7205SYZQE		MOM.	OFF	MOM.
7207SYZQE		ON	OFF	MOM.
7208SYZQE		ON	NONE	MOM.
7211SYZQE		ON	ON	ON

MOM. = Momentary

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-9.
For PC mounting information, see page A-10.



7301SYZQE
3PDT



PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7301SYZQE	3PDT	ON	NONE	ON
7303SYZQE		ON	OFF	ON

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-9.
For PC mounting information, see page A-10.

SWITCHES WITH STANDARD OPTIONS

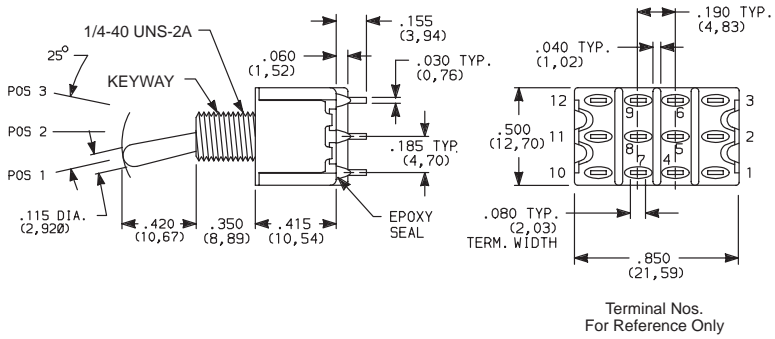


A

Toggle

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7401SYZQE	4PDT	ON	NONE	ON
7403SYZQE		ON	OFF	ON
7411SYZQE		ON	ON	ON

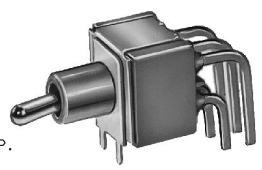
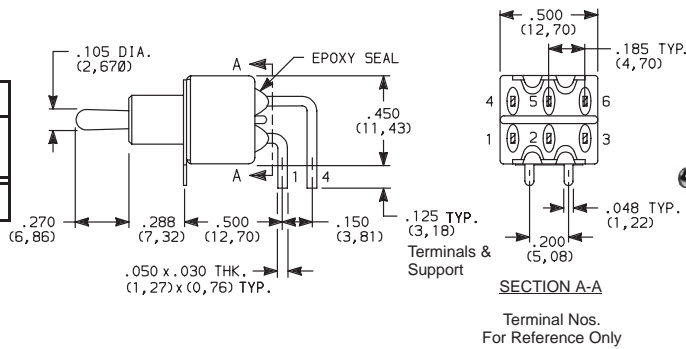
NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page A-9.
For PC mounting information, see page A-10.



7401SYZQE
4PDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7201MD9AQE	DPDT	ON	NONE	ON

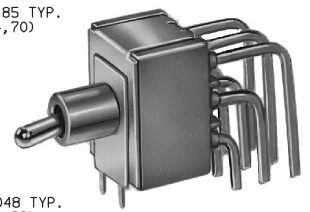
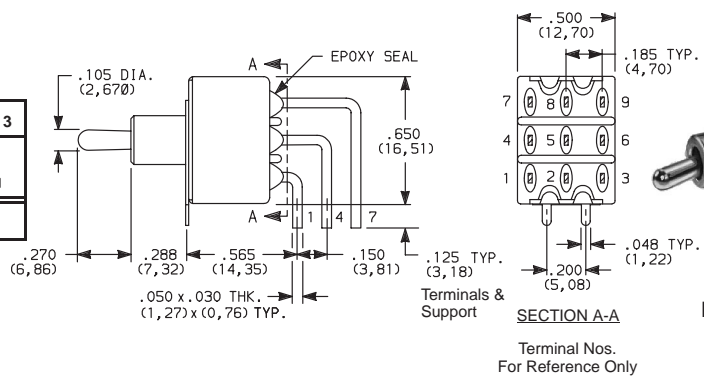
NOTE: For PC mounting information, see page A-11.



7201MD9ABE
Horizontal Actuation
DPDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7301MD9ABE	3PDT	ON	NONE	ON

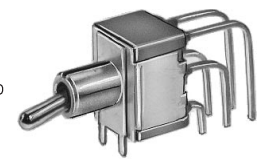
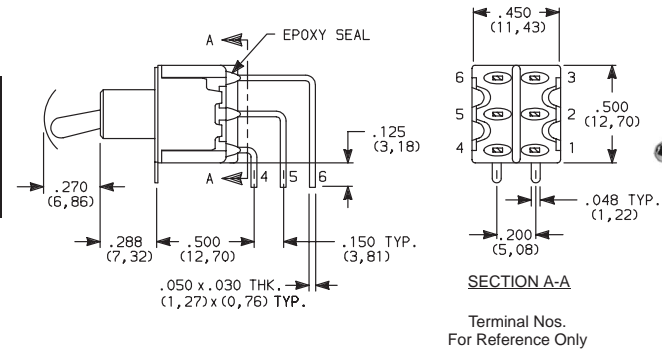
NOTE: For PC mounting information, see page A-11.



7301MD9ABE
Horizontal Actuation
3PDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7201MD9AV2BE	2PDT	ON	NONE	ON

NOTE: For PC mounting information, see page A-13.

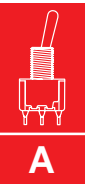


7201MD9AV2BE
Vertical Actuation
DPDT

7000 Series Miniature Toggle Switches



SWITCH FUNCTION



Toggle

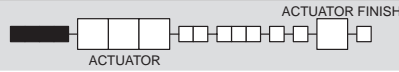
NO. POLES	MODEL NO.	UL/CSA** MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC			
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3				
SP	7101 (STD.)	U11	ON	NONE	ON	2-3	OPEN	2-1				
	7103 (STD.)	U13	ON	OFF	ON							
	7105	U15	MOM.	OFF	MOM.							
	7107	U17	ON	OFF	MOM.							
	7108	U18	ON	NONE	MOM.							
	7109	U19	NONE	ON	MOM.					N/A	2-3	2-1
DP	7201 (STD.)	U21	ON	NONE	ON	2-3,5-6	OPEN	2-1,5-4				
	7203 (STD.)	U23	ON	OFF	ON							
	7205	U25	MOM.	OFF	MOM.							
	7207	U27	ON	OFF	MOM.							
	7208	U28	ON	NONE	MOM.							
	7209	U29	NONE	ON	MOM.					N/A	2-3,5-6	2-1,5-4
	7211 (STD.)*	U211*	ON	ON	ON							
	7213*	U213*	ON	ON	MOM.					2-3,5-6	2-3,5-4	2-1,5-4
7215*	U215*	MOM.	ON	MOM.								
3P	7301 (STD.)	U31	ON	NONE	ON	2-3,5-6,8-9	OPEN	2-1,5-4,8-7				
	7303	U33	ON	OFF	ON							
	7305	U35	MOM.	OFF	MOM.							
	7307	U37	ON	OFF	MOM.							
	7308	U38	ON	NONE	MOM.							
	7309	U39	NONE	ON	MOM.					N/A	2-3,5-6,8-9	2-1,5-4,8-7
4P	7401 (STD.)	U41	ON	NONE	ON	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10				
	7403	U43	ON	OFF	ON							
	7405	U45	MOM.	OFF	MOM.							
	7407	U47	ON	OFF	MOM.							
	7408	U48	ON	NONE	MOM.							
	7409	U49	NONE	ON	MOM.					N/A	2-3,5-6,8-9,11-12	2-1,5-4,8-7,11-10
	7411*	U411*	ON	ON	ON							
	7413*	U413*	ON	ON	MOM.					2-3,5-6,8-9,11-12	2-3,5-4,8-9,11-10	2-1,5-4,8-7,11-10
7415*	U415*	MOM.	ON	MOM.								

MOM. = Momentary

* Wiring for 3-way switch, see page L-29.

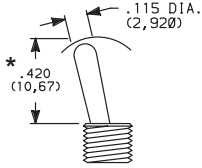
**U11 - U415 model nos. with all options when ordered with G, L, M or Q contact material.

ACTUATOR



S (STD.) .410" HIGH ¹

SP ANTIROTATION, .420" HIGH ^{2,3}

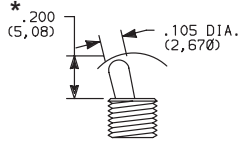


S actuator standard when ordered with C, W-W5, Z & Z3 terminations.

NOTE: Caps are available separately, see page L-10.

M (STD.) .200" HIGH ¹

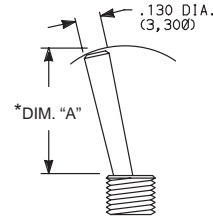
MP ANTIROTATION, .200" HIGH ^{2,3}



M actuator standard when ordered with all terminations except C, W-W5, Z & Z3.

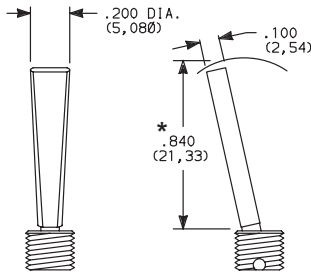
L, L1, L2 .840", .640", .550" HIGH ¹

LP, L1P, L2P ANTIROTATION, .840", .640", .550" HIGH ^{2,3}

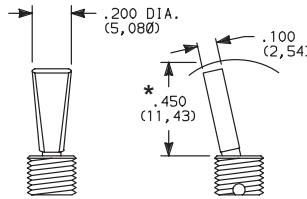


OPTION CODE	DIM. "A"
L, LP	.840 (21,34)
L1, L1P	.640 (16,26)
L2, L2P	.550 (13,97)

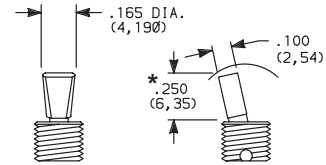
P1 FLATTED WITH ANTIROTATION, .840" HIGH ^{2,3}



P3 (STD.) FLATTED WITH ANTIROTATION, .450" HIGH ^{2,3}



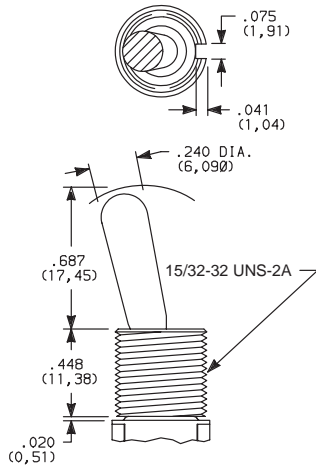
P4 FLATTED WITH ANTIROTATION, .250" HIGH ^{2,3}



Dress nut part number 709901201 supplied standard with threaded bushing. (Part number 709903201 with metric threaded bushings.)

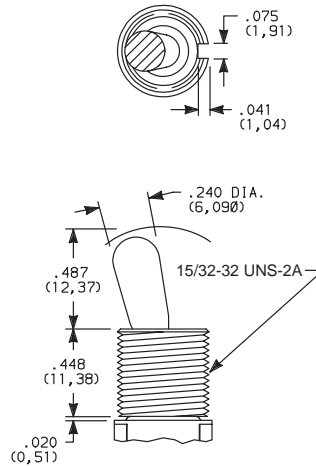
T (STD.) .687" HIGH ^{1,2}

TP ANTIROTATION, .687" HIGH, 15/32 BUSHING ^{1,2,3}

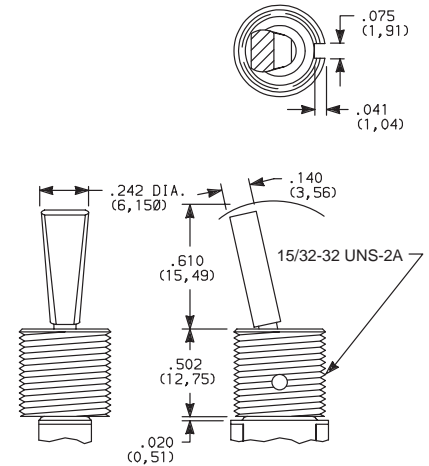


T1 .460" HIGH ^{1,2}

T1P ANTIROTATION, .460" HIGH, 15/32 BUSHING ^{1,2,3}



T2P FLATTED, ANTIROTATION, .610" HIGH, 15/32 BUSHING ^{1,2,3}



Bushing option code not required unless CW splashproof bushing ordered. TP & T1P actuators not available with CW splashproof bushing. All TXX actuators not available on single pole models with A-A7, AW-AW4, R & R2 terminations.

Bushing option code not required. T2P actuator not available with CW splashproof bushing or single pole models with A-A7, AW-AW4, R & R2 terminations.

¹ L, L1, L2, M, S & TXX actuators not available with Y1 bushing.

² LP, L1P, L2P, MP, P1, P3, P4, SP & TXX actuators not available with D8 & H4 bushing.

³ Antirotation: Provides anti-'push-in' feature on actuator.

* Add .070 (1,78) for D, D8 & D9 bushings, subtract .020 (0,51) for H3 bushing.

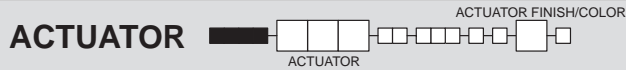
OPTION CODE	ACTUATOR FINISH
NONE	(STD.) BRIGHT CHROME - With Nickel Plated Bushing
2	(STD.) BLACK
0	BRIGHT CHROME - With Black Bushing
S	SATIN CHROME

NOTE: Black hardware is supplied when either black actuators or bushings are specified. All hardware is available separately, see section L.

7000 Series Miniature Toggle Switches

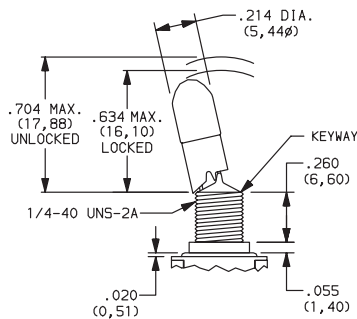


Toggle

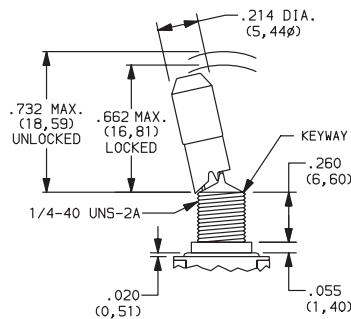


- K2** LOCKING LEVER, .704" HIGH (threaded)
K9 LOCKING LEVER, .704" HIGH (unthreaded)

- K12** LOCKING LEVER, .732" HIGH (threaded)
K19 LOCKING LEVER, .732" HIGH (unthreaded)



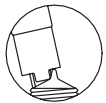
Replaces K, K8



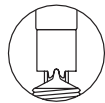
Replaces K1, K18

OPTION CODE	ACTUATOR CAP FINISH
NONE	(STD.) NATURAL ALUMINUM—With Nickel Plated Bushing
0	(STD.) NATURAL ALUMINUM—With Black Bushing
2	BLACK ANODIZED ALUMINUM
3	RED ANODIZED ALUMINUM
7	BLUE ANODIZED ALUMINUM

Locking Positions



-01 Models
2 Position lock



-03 & -11 Models
3 Position lock



-05, -09 & -15 Models
1 Position lock



-07 & -13 Models
2 Position lock

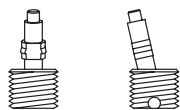


-08 Models
1 Position lock

NOTE: To prevent accidental actuation, toggle must be lifted before being actuated. When released, toggle will lock in place. Overtightening mounting nut may cause actuator to bind.

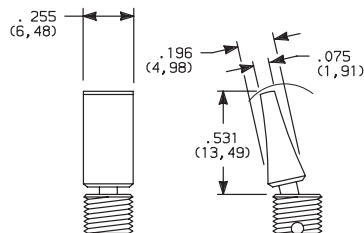
Bushing option code not required unless CW splashproof bushing ordered.

L40 LEVER HANDLE WITHOUT CAP



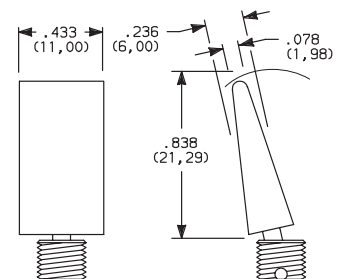
No color choice required.

L41 PLASTIC LEVER HANDLE WITH ANTIROTATION AND CAP, P/N 4810

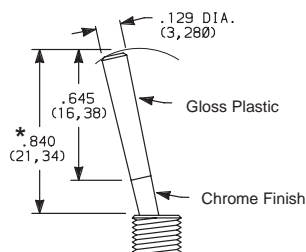


Finish: Matte (L41 & L42).

L42 PLASTIC LEVER HANDLE WITH ANTIROTATION AND CAP, P/N 4811



- L3** PLASTIC, .840" HIGH
L3P ANTIROTATION, .840" HIGH

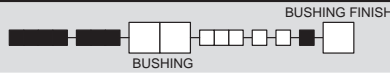


OPTION CODE	PLASTIC ACTUATOR COLORS
NONE	(STD.) No Actuator Color (L40 option)
2	(STD.) BLACK
1	WHITE
3	RED

* Add .070 (1,78) for D, D8 & D9 bushings, subtract .020 (0,51) for H3 bushing.

NOTE: Lever handle for L41 & L42 actuators supplied, but not installed. For interchangeability, order L40 actuator option and lever handles separately, see section L. L4X actuators not available with H4, Y1, Y4 bushings. Antirotation: Provides anti-'push-in' feature on actuator.

BUSHING



Y (STD.) .350" HIGH, THREADED, KEYWAY

Y9 .350" HIGH, UNTHREADED, KEYWAY

NONE NO BUSHING

No bushing choice required with KXX, TXX actuators. (exception: Specify CW if splashproof bushing desired).

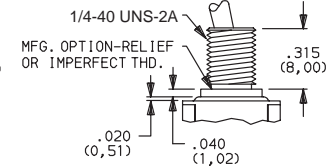
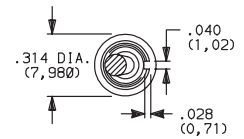
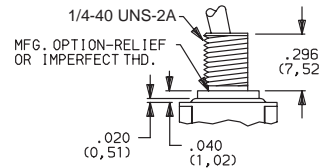
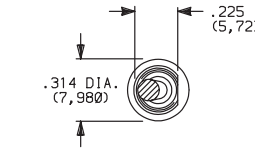
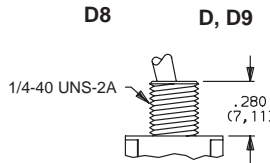
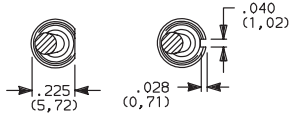
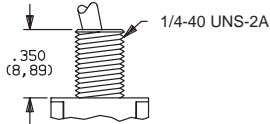
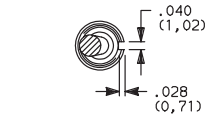
D (STD.) .280" HIGH, THREADED, KEYWAY

D8 .280" HIGH, UNTHREADED, FLAT³

D9 .280" HIGH, UNTHREADED, KEYWAY

H (STD.) .296" HIGH, FLAT, THREADED, HIGH TORQUE 1, 2

H3 .315" HIGH, KEYWAY, THREADED, HIGH TORQUE 1, 2



Y bushing standard with C, W-W5, Z or Z3 terminations.

D9 bushing standard with all terminations except C, W-W5, Z or Z3. Add .070 (1,78) to all actuators lengths with D, D8 & D9 bushings.

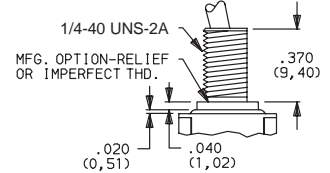
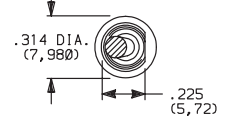
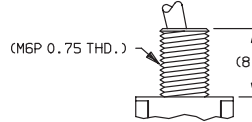
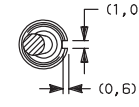
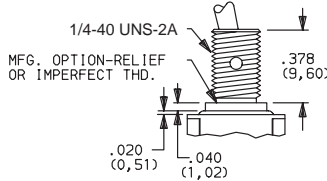
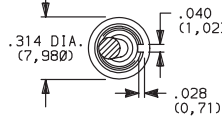
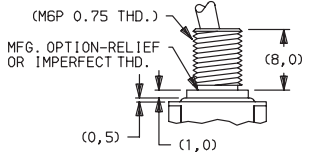
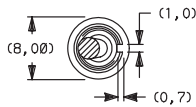
Subtract .020 (0,51) from all actuator lengths for H3 bushing.

H4 8mm HIGH, KEYWAY, THREADED, METRIC HIGH TORQUE 1, 2, 3

Y1 .378" HIGH, KEYWAY, THREADED, HIGH TORQUE 1, 2, 4

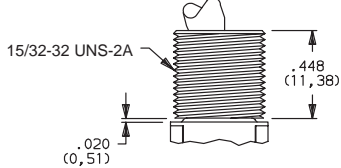
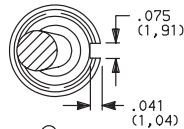
Y3 8.9mm HIGH, KEYWAY, THREADED, METRIC

Y4 .378" HIGH, FLAT, THREADED, HIGH TORQUE 1, 2, 5

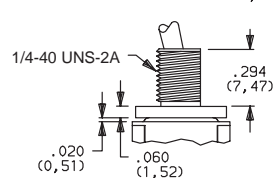
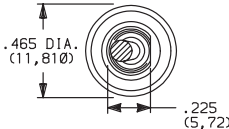


CW THREADED, SPLASHPROOF 1, 2

For T & T1 actuators.



For actuators other than T & T1.



IP67 Degree of protection, totally protected against dust, full-scale voltage protection, temporary immersion. Internal actuator seal standard. External bushing seal washer available from: Multi-Flex Seals, Inc., Hackensack, NJ. Part number: MFS-60064.

IP67 Degree of protection, totally protected against dust, full-scale voltage protection, temporary immersion. Internal actuator seal and external bushing seal washer standard.

OPTION CODE	BUSHING FINISH
NONE	(STD.) NICKEL on all bushings except 'D8' satin chrome.
2	BLACK

1 Will withstand 12 in.-lbs. of torque with no distortion.

2 CW, H, H3, H4, Y1 & Y4 bushings not available on single pole models with A4, R or R2 terminations.

3 D8 & H4 bushings available only with L, L1, L2, L3, M & S actuators.

4 Y1 bushing available only with LP, LXP, MP, PX & SP actuators.

5 Y4 bushing not available with L4X actuators.

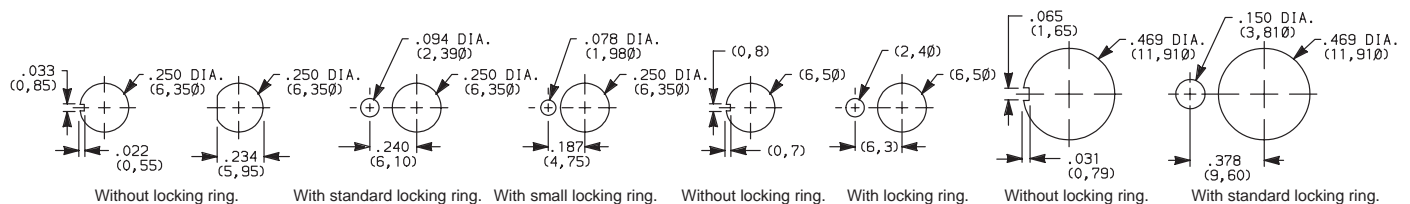
NOTE: Two mounting nuts, locking ring and lockwasher supplied standard with threaded bushings. Black hardware is supplied when either black bushings or actuators are specified. Optional mounting nut and locking ring styles and finishes available, see section L.

PANEL MOUNTING

1/4 INCH BUSHING

METRIC BUSHING

15/32 INCH BUSHING



Without locking ring.

With standard locking ring.

With small locking ring.

Without locking ring.

With locking ring.

Without locking ring.

With standard locking ring.

7000 Series Miniature Toggle Switches

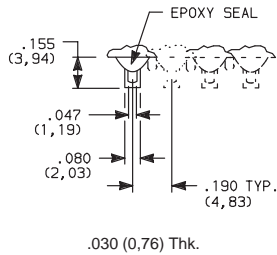


Toggle

TERMINATIONS



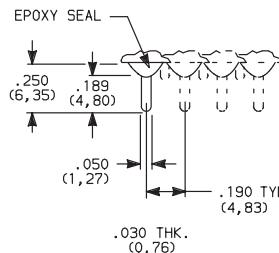
Z (STD.) SOLDER LUG



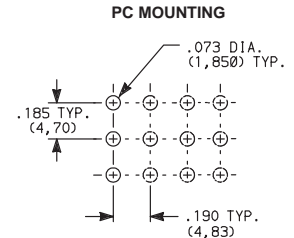
SPDT thru 4PDT

Not available with K, L or M contact materials.

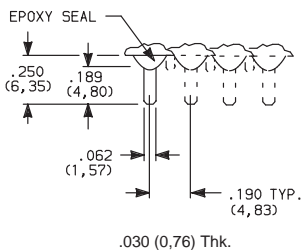
C (STD.) PC THRU-HOLE



SPDT thru 4PDT



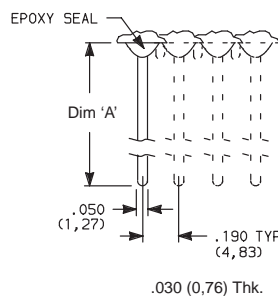
Z3 QUICK CONNECT



SPDT thru 4PDT

Not available with K, L or M contact materials.
Mating quick connector available, order part number 530100000.

W, W1, W3, W4, W5 WIRE WRAP



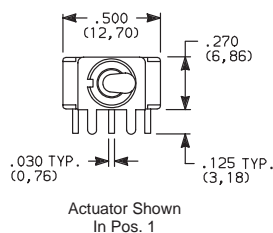
SPDT thru 4PDT

OPTION CODE	DIM 'A'
W	.750 (19,05)
W1	.964 (24,48)
W3	.425 (10,80)
W4	1.062 (26,97)
W5	1.305 (33,15)

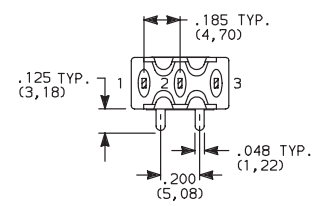
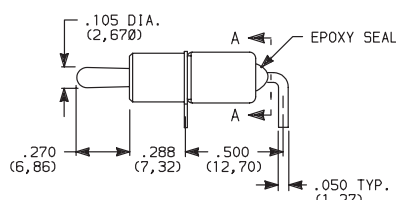
A (STD.) RIGHT ANGLE, PC THRU-HOLE



7101MD9ABE
Horizontal Actuation
SPDT

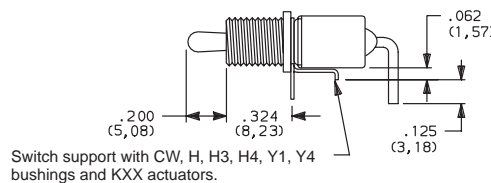


Actuator Shown
In Pos. 1



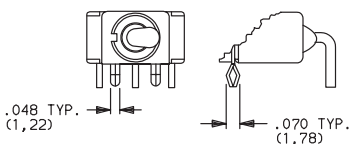
SECTION A-A

Terminal Nos.
For Reference Only

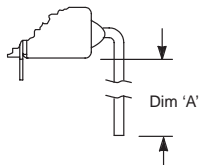


Part No. Shown: 7101MHABE

A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE

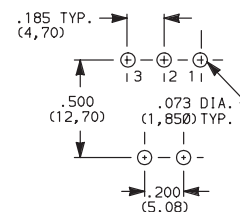


AW, AW1, AW3, AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



OPTION CODE	DIM 'A'
AW	.50 (12,7)
AW1	.72 (18,3)
AW3	.20 (5,1)
AW4	.83 (21,1)

PC MOUNTING



Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

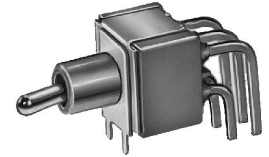
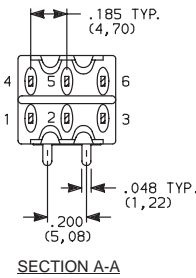
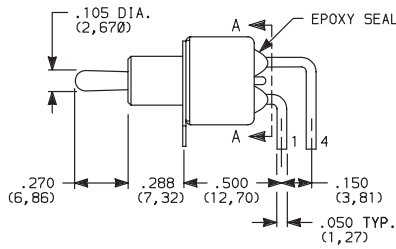
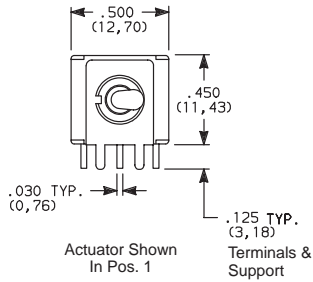
TERMINATIONS



A

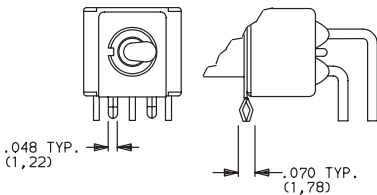
Toggle

A (STD.) RIGHT ANGLE, PC THRU-HOLE

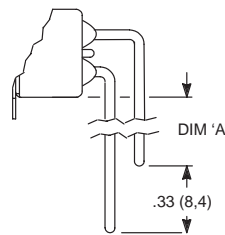


7201MD9ABE
Horizontal Actuation
DPDT

A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE

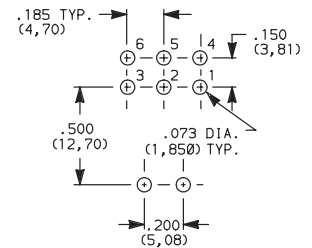


AW, AW1, AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



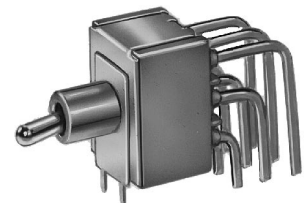
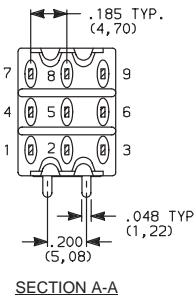
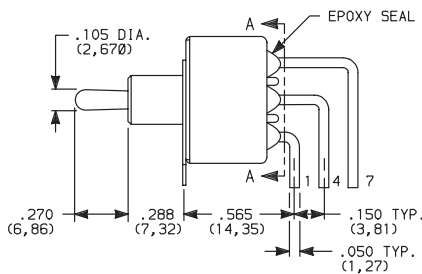
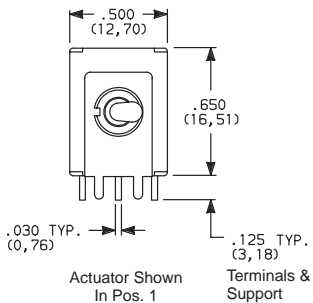
OPTION CODE	DIM 'A'
AW	.19 (4,8)
AW1	.40 (10,2)
AW4	.50 (12,7)

PC MOUNTING



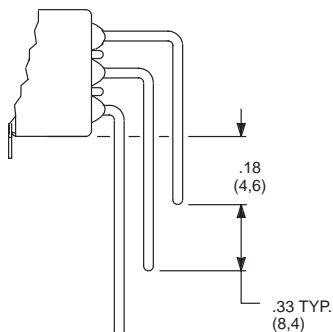
Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

A (STD.) RIGHT ANGLE, PC THRU-HOLE

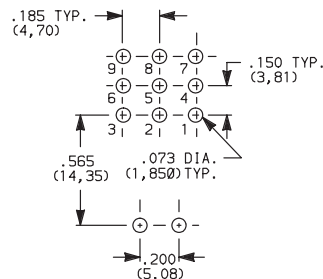


7301MD9ABE
Horizontal Actuation
3PDT

AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



PC MOUNTING



Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

7000 Series Miniature Toggle Switches



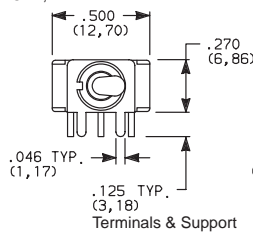
TERMINATIONS



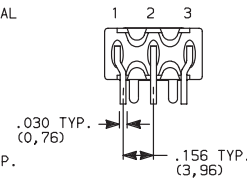
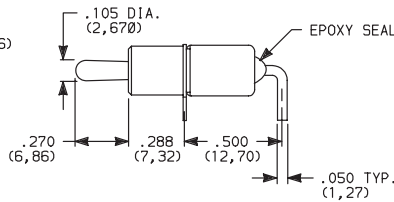
A2 RIGHT ANGLE, PC THRU-HOLE,
.156" PITCH



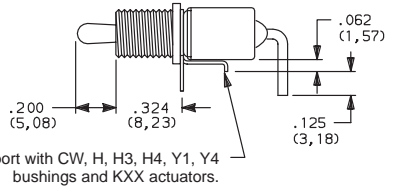
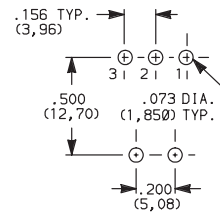
7101MHA2BE
Horizontal Actuation
SPDT



Actuator Shown In Pos. 1



PC MOUNTING

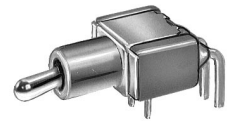


Switch support with CW, H, H3, H4, Y1, Y4 bushings and KXX actuators.

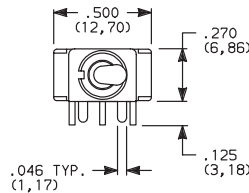
Part No. Shown: 7101MHA2BE

Not available with TXX actuators and I seal.
Terminal bend radii and lead-in manufacturing option.

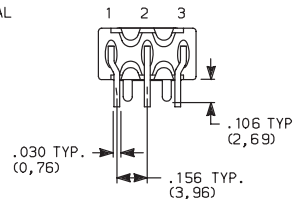
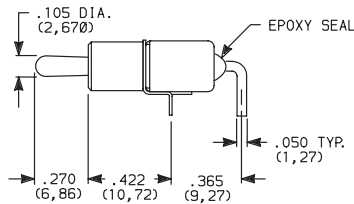
A4 RIGHT ANGLE, PC THRU-HOLE,
.156" PITCH



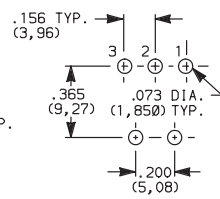
7101MD9A4BE
Horizontal Actuation
SPDT



Actuator Shown In Pos. 1

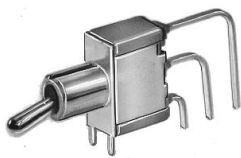


PC MOUNTING

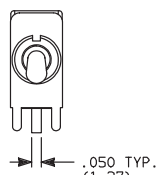


NOTE: Termination options A4 & R2 are functionally identical and fit the same PC mounting pattern. The switches, however, are shifted relative to the mounting holes. Unlike the R2, the A4 option is available with any contact material and can be UL recognized and CSA certified. The PC pattern must clear switch support legs.

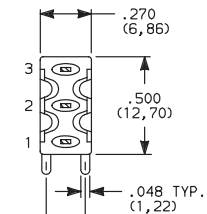
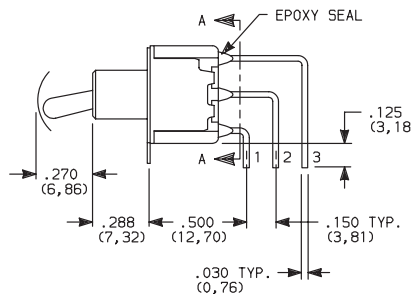
AV2 (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



7101MD9AV2BE
Vertical Actuation
SPDT

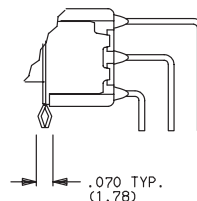
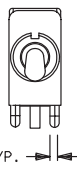


Actuator Shown In Pos. 1

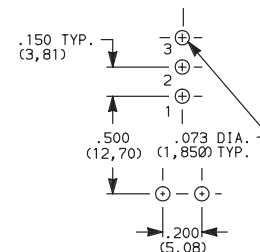


SECTION A-A

AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,
.150" PITCH



PC MOUNTING



Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

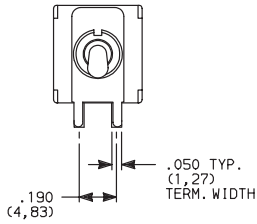
TERMINATIONS



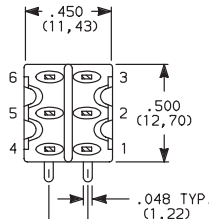
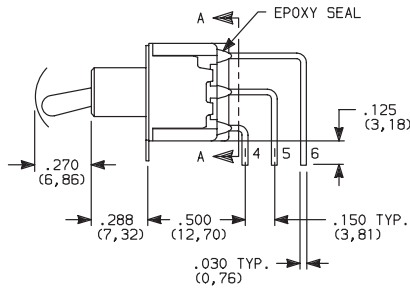
A

Toggle

AV2 (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



Actuator Shown In Pos. 1

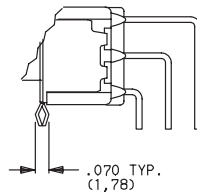
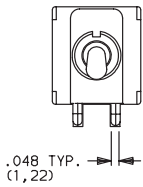


SECTION A-A

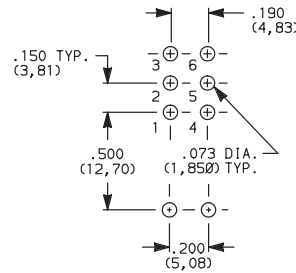


7201MD9AV2BE
Vertical Actuation
DPDT

AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH

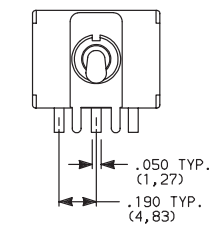


PC MOUNTING

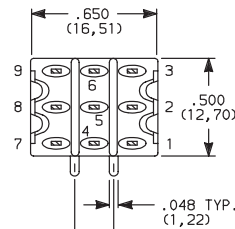
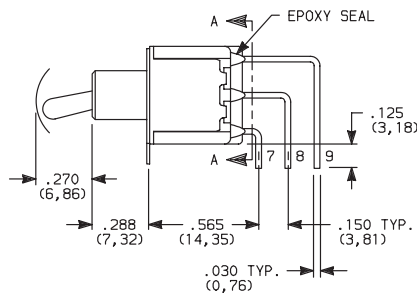


Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

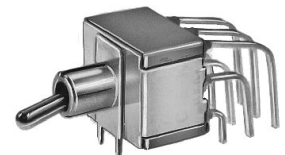
AV2 (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



Actuator Shown In Pos. 1

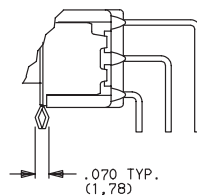
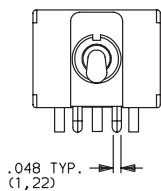


SECTION A-A

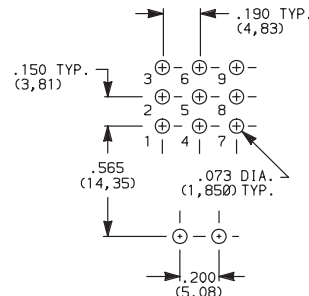


7301MD9AV2BE
Vertical Actuation
3PDT

AV3 VERTICAL RIGHT ANGLE, SNAP-IN, .150" PITCH



PC MOUNTING



Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

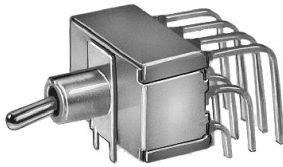
7000 Series Miniature Toggle Switches



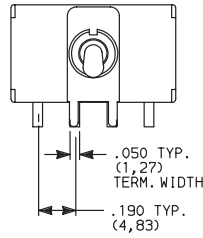
TERMINATIONS



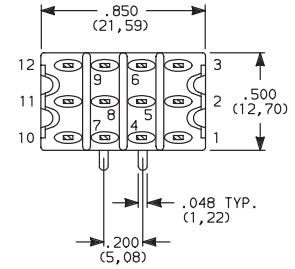
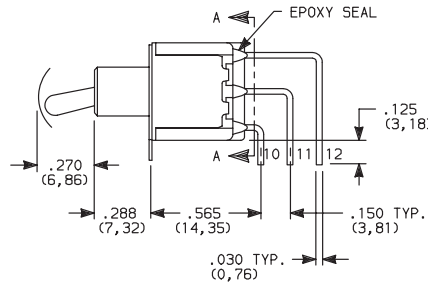
AV2 (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



7401MD9AV2BE
Vertical Actuation
4PDT

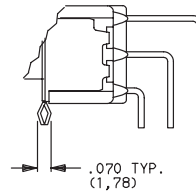
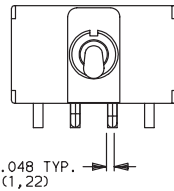


Actuator Shown In Pos. 1

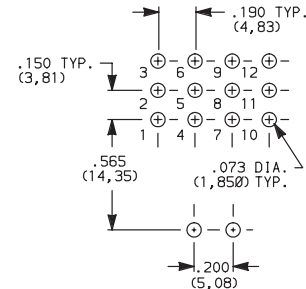


SECTION A-A

AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,
.150" PITCH

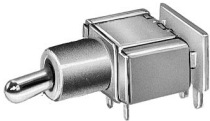


PC MOUNTING

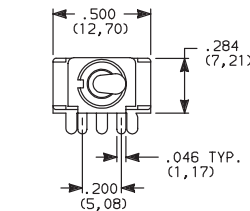


Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

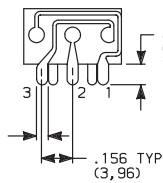
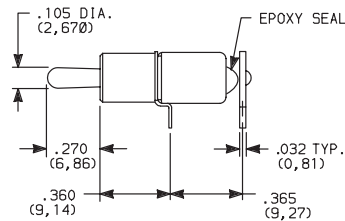
R RIGHT ANGLE WITH PCB



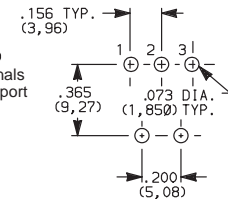
7101MD9RBE
Horizontal Actuation
SPDT



Actuator Shown In Pos. 1

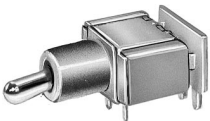


PC MOUNTING

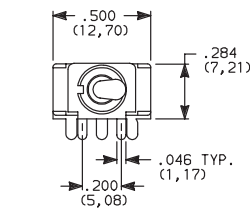


Not available with KXX & TXX actuators, CW, H, H3, H4, Y1 & Y4 bushings.
Contact makes on same side actuator throw.

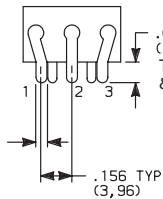
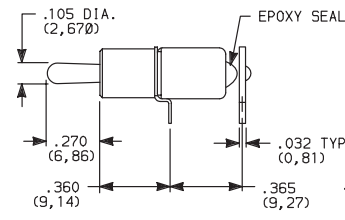
R2 RIGHT ANGLE WITH PCB



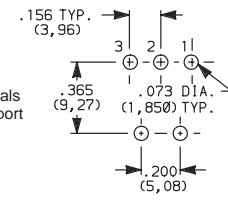
7101MD9R2BE
Horizontal Actuation
SPDT



Actuator Shown In Pos. 1



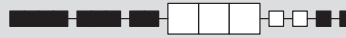
PC MOUNTING



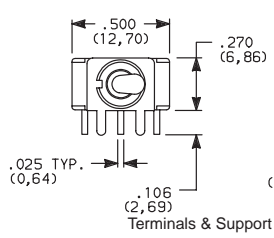
Not available with KXX & TXX actuators, CW, H, H3, H4, Y1 & Y4 bushings.
Contact makes on opposite side actuator throw.

Toggle
A

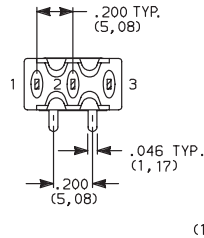
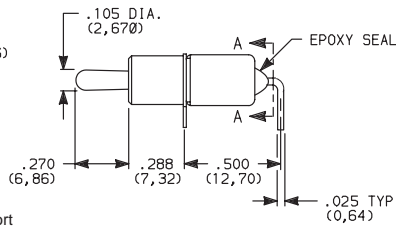
TERMINATIONS



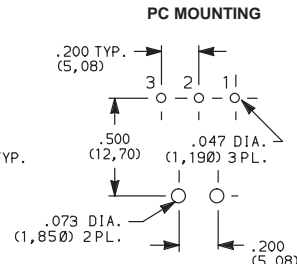
A7 RIGHT ANGLE, PC THRU-HOLE,
.025" SQUARE, .200" PITCH



Actuator Shown In Pos. 1



SECTION A-A

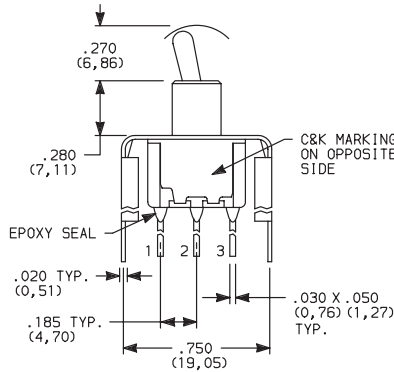


7101MD9A7BE
Horizontal Actuation
SPDT

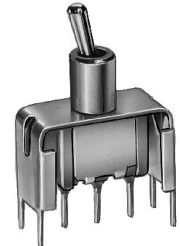
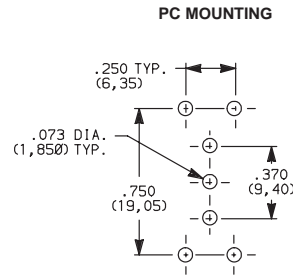
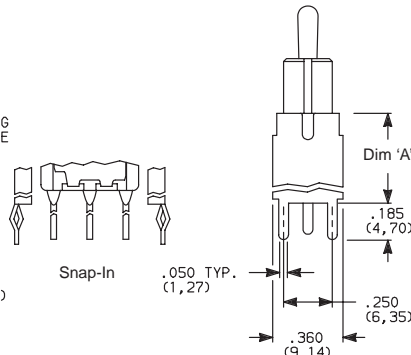
Not available with KXX & TXX actuators, H, H3, H4, Y1 & Y4 bushings. I seal option.
Terminal bend radii and lead-in manufacturing option. Available with B contact material only.

V2, V6, V7, V8 VERTICAL MOUNT, V-BRACKET

V21, V61, V71, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



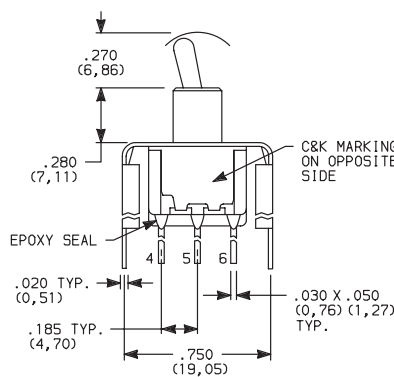
7101MD9_BE
SPDT

OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V6, V61	.460 (11,68)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)

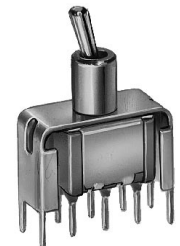
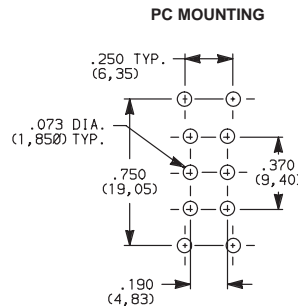
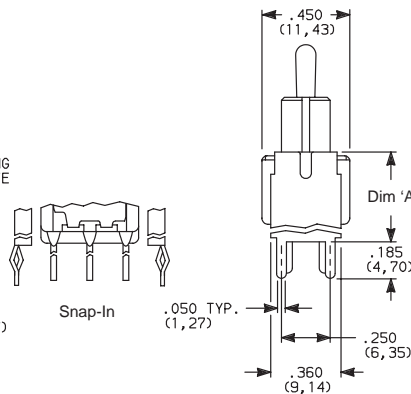
Not available with I seal option.

V2, V6, V7, V8 VERTICAL MOUNT, V-BRACKET

V21, V61, V71, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



7201MD9_BE
DPDT

OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V6, V61	.460 (11,68)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)

Not available with I seal option.

7000 Series Miniature Toggle Switches



TERMINATIONS

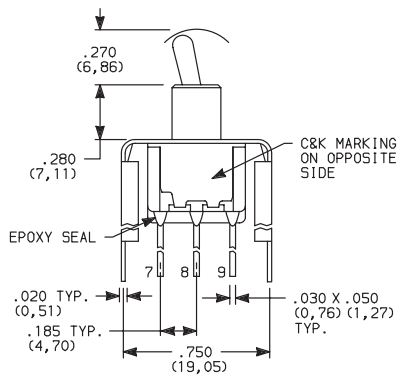
Toggle
A

V2, V7, V8 VERTICAL MOUNT, V-BRACKET

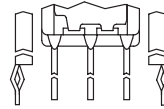
V21, V71, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



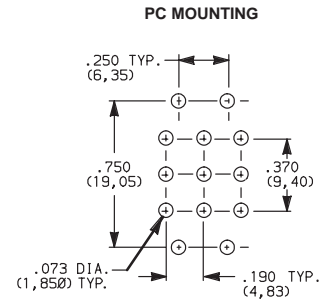
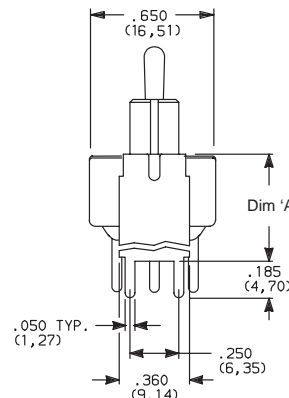
7301MD9_BE
3PDT



Actuator Shown In Pos. 1



Snap-In



OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)

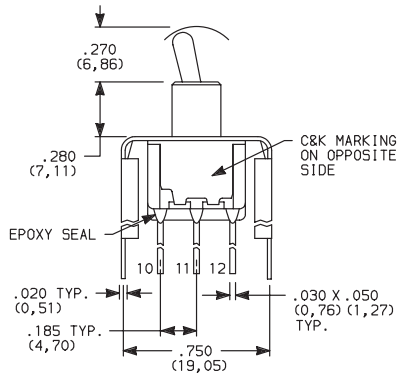
Not available with I seal option.

V2, V7, V8 VERTICAL MOUNT, V-BRACKET

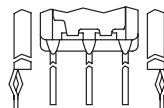
V21, V71, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



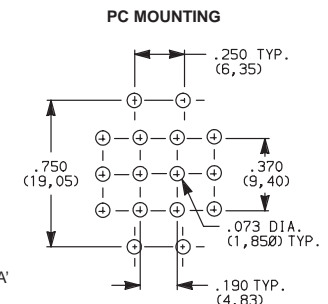
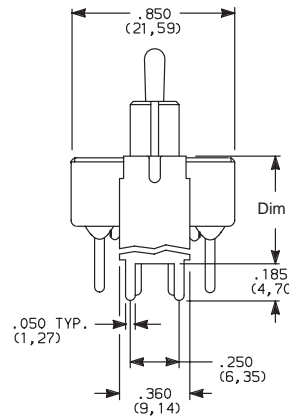
7401MD9_BE
4PDT



Actuator Shown In Pos. 1



Snap-In

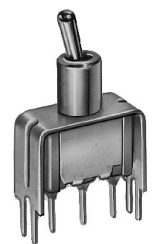


OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)

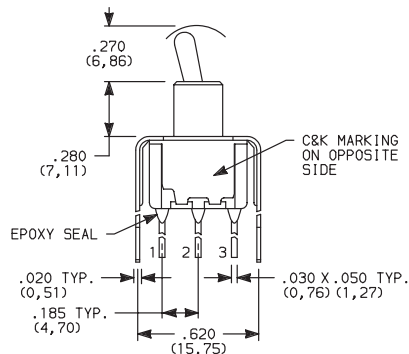
Not available with I seal option.

V3 (STD.), V4, V9 VERTICAL MOUNT, V-BRACKET

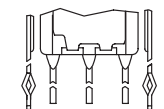
V31, V41, V91 VERTICAL MOUNT, V-BRACKET, SNAP-IN



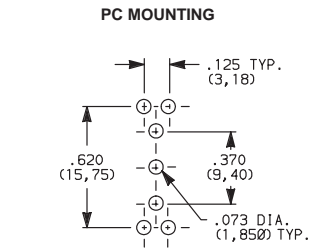
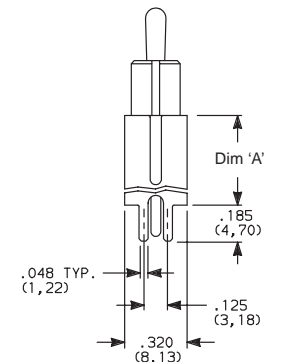
7101MD9_BE
SPDT



Actuator Shown In Pos. 1



Snap-In



OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)
V9, V91	1.150 (29,21)

Not available with I seal option.

TERMINATIONS

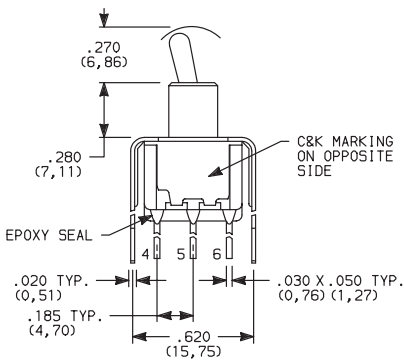


A

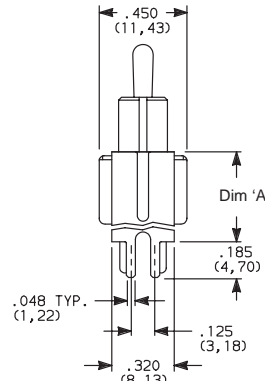
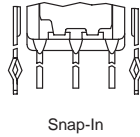
Toggle

V3 (STD.), V4, V9 VERTICAL MOUNT, V-BRACKET

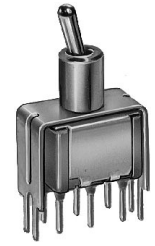
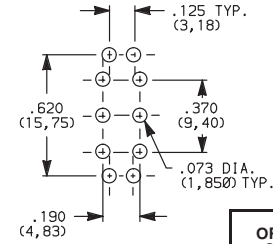
V31, V41, V91 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



PC MOUNTING



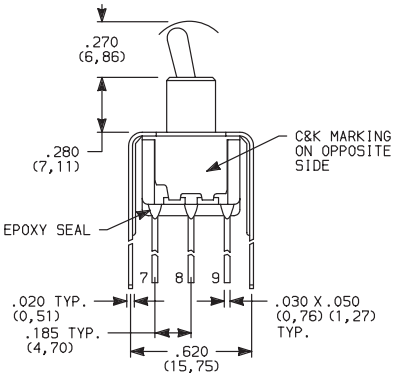
7201MD9_BE
DPDT

OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)
V9, V91	1.150 (29,21)

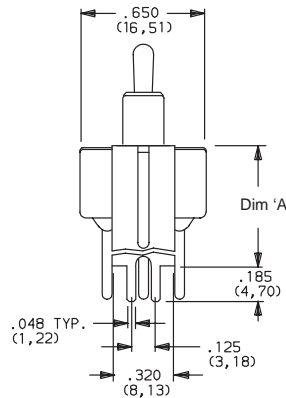
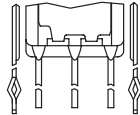
Not available with I seal option.

V4, V9 VERTICAL MOUNT, V-BRACKET

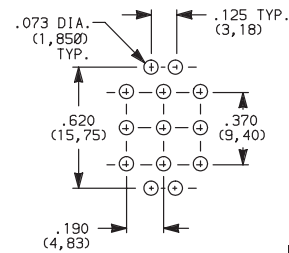
V41, V91 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



PC MOUNTING



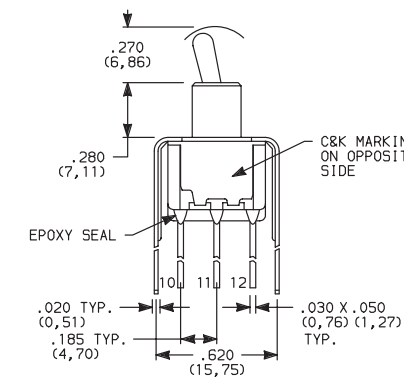
7301MD9_BE
3PDT

OPTION CODE	DIM 'A'
V4, V41	.630 (16,00)
V9, V91	1.150 (29,21)

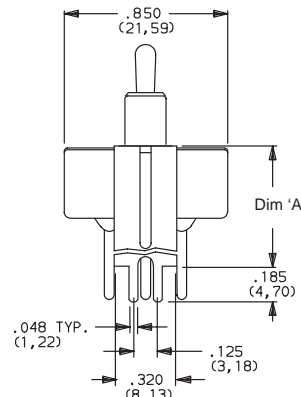
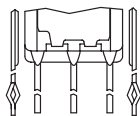
Not available with I seal option.

V4, V9 VERTICAL MOUNT, V-BRACKET

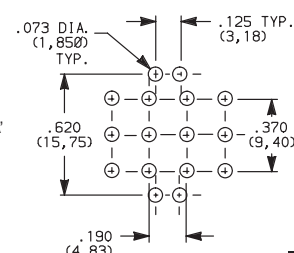
V41, V91 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



PC MOUNTING



7401MD9_BE
4PDT

OPTION CODE	DIM 'A'
V4 V41	.630 (16,00)
V9, V91	1.150 (29,21)

Not available with I seal option.

7000 Series Miniature Toggle Switches



A
Toggle

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B (STD.)	GOLD ¹	GOLD ¹	LOW LEVEL/ DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
K		TIN-LEAD ⁶		
Q (STD.)	SILVER ^{4,5}	SILVER ⁵	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
M		TIN-LEAD ⁶		
G	GOLD OVER SILVER ^{2,3}	GOLD ³	LOW LEVEL/ DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC OR DC MAX. OR 5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
L		TIN-LEAD ⁶		

CONTACT MATERIAL / APPLICATION RECOMMENDATIONS – SEE CHART, PAGE L-31.

- ¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- ² END CONTACTS: Coin silver, with gold plate over nickel plate.
- ³ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- ⁴ END CONTACTS: Coin silver, silver plated.
- ⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- ⁶ TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.

U11 - U415 model numbers with all options when ordered with G, L, M or Q contact material.

B contact material standard with all terminations, except C, Z & Z3.

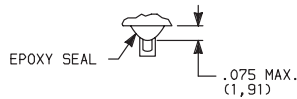
B contact material must be ordered with A7, AW6 - AW7, R, R2, W6 - W7 terminations.

Q contact material standard with C, Z & Z3 terminations.

K, L & M contact materials not available with Z & Z3 terminations.

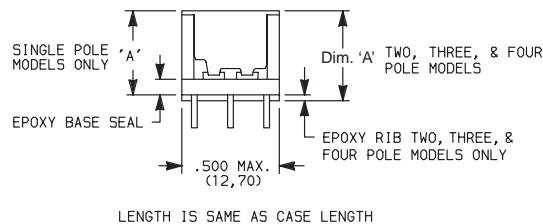
SEAL

E (STD.) EPOXY SEAL



Compatible with "bottom-wash" PC board cleaning methods.

I EPOXY POTTED BASE



NO. POLES	DIM 'A'
SP	.410 (10,41)
DP	.440 (11,18)
3P	.505 (12,83)
4P	.505 (12,83)

Available with C, W - W5, Z & Z3 terminations only.